

AMENDMENTS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-15 (canceled)

Claim 16. (currently amended) A method of promoting growth ~~or differentiation~~ of hematopoietic stem cells, hematopoietic progenitors, or a combination thereof, said method comprising administering at least one promoter ~~of growth or differentiation of hematopoietic stem cells, hematopoietic progenitors, or a combination thereof, wherein said at least one promoter includes~~ comprising Cofilin including the amino acid sequence depicted by SEQ ID NO: 1 as an active ingredient and promotes promoting growth ~~or differentiation~~ of hematopoietic stem cells, hematopoietic progenitors, or a combination thereof.

Claims 17-18. (canceled)

Claim 19. (currently amended) A method of expanding hematopoietic stem cells *ex vivo* comprising administering at least one promoter ~~of growth or differentiation of hematopoietic stem cells, hematopoietic progenitors, or a combination thereof, wherein said at least one promoter includes~~ comprising Cofilin including the amino acid sequence depicted by SEQ ID NO: 1 to the hematopoietic stem cells, ~~wherein said at least one promoter includes~~ Cofilin as an active ingredient and expands expanding hematopoietic stem cells *ex vivo*.

Claim 20. (currently amended) A method of regenerative medicine treating diseases that result from insufficient growth of hematopoietic stem cells or hematopoietic progenitors, comprising expanding hematopoietic stem cells *ex vivo* by administering at least one promoter ~~of growth or differentiation of hematopoietic stem cells, hematopoietic progenitors, or a combination thereof~~ comprising Cofilin including the amino acid sequence depicted by SEQ ID NO: 1 to the hematopoietic stem cells, and transplanting the expanded hematopoietic stem cells, ~~wherein said at least one promoter includes~~ Cofilin as an active ingredient.

Claims 21-25. (canceled)

Claim 26. (currently amended) The method of claim 16, 19 or 20 or ~~17~~, wherein the Cofilin is produced by a gene recombinant technique.

Claim 27. (currently amended) The method of claim 16, 19 or 20 or ~~17~~, wherein the Cofilin ~~has~~ includes a sugar chain.

Claim 28. (currently amended) The method of claim 16, 19 or 20 or ~~17~~, ~~which wherein~~ the promoter further includes a cytokine other than Cofilin.

Claim 29. (currently amended) The method of claim 28, wherein said cytokine other than Cofilin is interleukin (IL)-1, IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-10 and IL-11, granulocyte colony stimulating factor (G-CSF), granulocyte/macrophage colony stimulating factor (GM-CSF), macrophage colony stimulating factor (M-CSF), erythropoietin (EPO), basic fibroblast growth factor (bFGF), acidic fibroblast growth factor (aFGF), insulin-like growth factor (IGF), epidermal growth factor (EGF), hepatocyte growth factor (HGF), transforming growth factor- α (TGF- α), protease nexin I, protease nexin II, platelet derived growth factor (PDGF), cholinergic differentiation factor (CDF), leukocyte migration inhibitory factor (LIF), stem cell factor (SCF), flk-2/flt-3 ligand (FL), thrombopoietin (TPO), IL-6/soluble IL-6 receptor complex, Hyper IL-6 (fusion protein from IL-6 or soluble IL-6 receptor), ~~and~~ or any combinations thereof.

Claim 30. (previously presented) The method of claim 28, wherein said cytokine other than Cofilin is IL-3.

Claim 31. (previously presented) The method of claim 28, wherein said cytokine other than Cofilin comprises stem cell factor (SCF), flk-2/flt-3 ligand (FL), or a combination thereof.

Claim 32. (currently amended) The method of claim 16 or ~~17~~, wherein said promoter is for treating diseases that result from insufficient growth ~~or differentiation~~ of hematopoietic stem cells [[,]] or hematopoietic progenitors.

Claim 33. (currently amended) The method of claim 16 or ~~17~~, wherein said promoter is for treating panhematopenia [[,]] or diseases that are accompanied by hematopoietic hypofunction.

Claims 34-36. (canceled)

Claim 37. (currently amended) The method of claim ~~35~~ 16, 19 or 20, wherein the ~~human non muscle type~~ Cofilin is encoded by SEQ ID NO: 2.

Claim 38. (new) The method of claim 20, wherein said promoter is for treating panhematopenia or diseases that are accompanied by hematopoietic hypofunction.

Claim 39. (new) A method of promoting differentiation of hematopoietic stem cells, hematopoietic progenitors, or a combination thereof, said method comprising administering at least one promoter comprising Cofilin including the amino acid sequence depicted by SEQ ID NO: 1 and a cytokine other than Cofilin as active ingredients and promoting differentiation of hematopoietic stem cells, hematopoietic progenitors, or a combination thereof.

Claim 40. (new) A method of treating diseases that result from insufficient growth of hematopoietic stem cells or hematopoietic progenitors, comprising expanding hematopoietic stem cells *ex vivo* by administering at least one promoter comprising Cofilin including the amino acid sequence depicted by SEQ ID NO: 1 and a cytokine other than Cofilin as active ingredients to the hematopoietic stem cells, and transplanting the expanded hematopoietic stem cells.

Claim 41. (new) The method of claim 40, wherein said promoter is for treating panhematopenia or diseases that are accompanied by hematopoietic hypofunction.

Claim 42. (new) The method of claim 39 or 40, wherein the Cofilin is produced by a gene recombinant technique.

Claim 43. (new) The method of claim 39 or 40, wherein the Cofilin includes a sugar chain.

Claim 44. (new) The method of claim 39 or 40, wherein said cytokine other than Cofilin is interleukin (IL)-1, IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-10 and IL-11, granulocyte colony stimulating factor (G-CSF), granulocyte/macrophage colony stimulating factor (GM-CSF), macrophage colony stimulating factor (M-CSF), erythropoietin (EPO), basic fibroblast growth factor (bFGF), acidic fibroblast growth factor (aFGF), insulin-like growth factor (IGF),

epidermal growth factor (EGF), hepatocyte growth factor (HGF), transforming growth factor- α (TGF- α), protease nexin I, protease nexin II, platelet derived growth factor (PDGF), cholinergic differentiation factor (CDF), leukocyte migration inhibitory factor (LIF), stem cell factor (SCF), flk-2/flt-3 ligand (FL), thrombopoietin (TPO), IL-6/soluble IL-6 receptor complex, Hyper IL-6 (fusion protein from IL-6 or soluble IL-6 receptor), or any combinations thereof.

Claim 45. (new) The method of claim 39 or 40, wherein said cytokine other than Cofilin is IL-3.

Claim 46. (new) The method of claim 39 or 40, wherein said cytokine other than Cofilin comprises stem cell factor (SCF), flk-2/flt-3 ligand (FL), or a combination thereof.

Claim 47. (new) The method of claim 39, wherein said promoter is for treating diseases that result from insufficient differentiation of hematopoietic stem cells or hematopoietic progenitors.

Claim 48. (new) The method of claim 39, wherein said promoter is for treating panhematopenia or diseases that are accompanied by hematopoietic hypofunction.

Claim 49. (new) The method of claim 39 or 40, wherein the Cofilin is encoded by SEQ ID NO: 2.